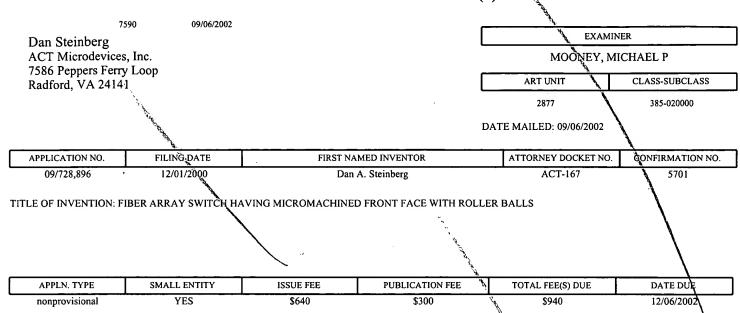


### United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE



THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT-RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### **HOW TO REPLY TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status.
   See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Box ISSUE FEE

**Commissioner for Patents** Washington, D.C. 20231

(703)746-4000 **Fax** 

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block I)

09/06/2002

Dan Steinberg ACT Microdevices, Inc. 7586 Peppers Ferry Loop Radford, VA 24141

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

	Transcribed to the out 10, on the base increases of the
(Depositor's name)	
(Signature)	
(Date)	

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728.896	12/01/2000	Dan A. Steinberg	ACT-167	5701

TITLE OF INVENTION: FIBER ARRAY SWITCH HAVING MICROMACHINED FRONT FACE WITH ROLLER BALLS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE PUBLICATION FEE		TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$640	\$300	\$940	12/06/2002
EXAM	INER	ART UNIT	CLASS-SUBCLASS		
MOONEY, N	MICHAEL P	2877	385-020000		
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).			2. For printing on the patent from the names of up to 3 registered	patent attorneys	
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.			or agents OR, alternatively, (2) single firm (having as a mem attorney or agent) and the national structure.	ber a registered	
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			registered patent attorneys or ag is listed, no name will be printed	ents. If no name	

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not	pe printed on the patent)	individual	□ corporation or other private group ent	ity 🚨 government
4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):			<u>,                                    </u>
☐ Issue Fee	☐ A check in the amount of the fee(s) is enclosed.			
□ Publication Fee	Payment by credit card. I	Form PTO-2038	is attached.	
☐ Advance Order - # of Copies	☐ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, Deposit Account Number(enclose an extra copy of this form).			
Commissioner for Patents is requested to apply the Issue Fee and Publ	ication Fee (if any) or to re-ap	pply any previou	usly paid issue fee to the application iden	tified above.
(Authorized Signature) (Date)				
NOTE; The Issue Fee and Publication Fee (if required) will not to other than the applicant; a registered attorney or agent; or the as interest as shown by the records of the United States Patent and Trad	signee or other party in			
This collection of information is required by 37 CFR 1.311. The instance obtain or retain a benefit by the public which is to file (and by the application. Confidentiality is governed by 35 U.S.C. 122 and 37 CF estimated to take 12 minutes to complete, including gathering, preparameter of the USPTO. Time will vary dependance. Any comments on the amount of time you require to consuggestions for reducing this burden, should be sent to the Chief Patent and Trademark Office, U.S. Department of Commerce, Was NOT SEND FEES OR COMPLETED FORMS TO THIS A Commissioner for Patents, Washington, DC 20231.	e USPTO to process) an R 1.14. This collection is aring, and submitting the ding upon the individual applete this form and/or nformation Officer, U.S.			

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. CONFIRMATION	
09/728,896	12/01/2000	Dan A. Steinberg	ACT-167	5701
7	590 09/06/2002		EXAMINI	ER
Dan Steinberg ACT Microdevices, Inc.			MOONEY, MI	CHAEL P
7586 Peppers Ferr			ART UNIT	PAPER NUMBER
Radford, VA 2414			2877	-
		I	DATE MAILED: 09/06/2002	

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 217 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 217 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)



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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. CONFIRMATION		
09/728,896	12/01/2000	Dan A. Steinberg	ACT-167 5701		
7:	590 09/06/2002		EXAMIN	ER	
Dan Steinberg ACT Microdevices, Inc.		•	MOONEY, MI	CHAEL P	
7586 Peppers Ferry			ART UNIT	PAPER NUMBER	
Radford, VA 24141 UNITED STATES			2877		
UNITED STATES			DATE MAILED: 09/06/2002		

## Notice of Possible Fee Increase on October 1, 2002

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2002, then the amount due may be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there may be an increase in fees effective on October 1, 2002. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Notice of Proposed Rulemaking, 67 Fed. Reg. 30634, 30636 (May 7, 2002). Although a change to the amount of the publication fee is not currently proposed for October 2002, if the issue fee or publication fee is to be paid on or after October 1, 2002, applicant should check the USPTO web site for the current fees before submitting the payment. The USPTO Internet address for the fee schedule is: <a href="http://www.uspto.gov/main/howtofees.htm">http://www.uspto.gov/main/howtofees.htm</a>.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of any fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after October 1, 2002 (or mailed with a certificate of mailing on or after October 1, 2002), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

AZ

,	Application No.		Applicant(s)			
Notice of Allowability	09/728,896		STEINBERG ET AL.			
	Examiner		Art Unit			
<i>6</i>	Michael P. Moor	nev	2877			
	Wildiaci T. Wilder		2011			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.						
1. This communication is responsive to						
2. The allowed claim(s) is/are <u>1-17</u> .						
3. The drawings filed on <u>01 December 2000</u> are accepted by						
<ul> <li>4. ☐ Acknowledgment is made of a claim for foreign priority unc</li> <li>a) ☐ All b) ☐ Some* c) ☐ None of the:</li> </ul>	der 35 U.S.C. § 11	9(a)-(d) or (f).				
1. Certified copies of the priority documents have	e been received.					
2. Certified copies of the priority documents have						
3. ☐ Copies of the certified copies of the priority do	cuments have bee	en received in this i	national stage applica	tion from the		
International Bureau (PCT Rule 17.2(a)).						
* Certified copies not received:						
5. Acknowledgment is made of a claim for domestic priority un			onal application).	,		
(a) The translation of the foreign language provisional a						
6. Acknowledgment is made of a claim for domestic priority un	nder 35 U.S.C. §§	120 and/or 121.				
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of						
7. A SUBSTITUTE OATH OR DECLARATION must be subminformal PATENT APPLICATION (PTO-152) which gives reas				NOTICE OF		
8. CORRECTED DRAWINGS must be submitted.  (a) including changes required by the Notice of Draftsper.  1) hereto or 2) to Paper No	son's Patent Draw	ring Review(PTO	-948) attached			
(b) including changes required by the proposed drawing of	correction filed	, which has be	een approved by the E	Examiner.		
(c) including changes required by the attached Examiner	's Amendment / C	omment or in the (	Office action of Paper	No		
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.						
9. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.						
Attachment(s)	·					
<ul> <li>1 ⋈ Notice of References Cited (PTO-892)</li> <li>3 ⋈ Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>5 ⋈ Information Disclosure Statements (PTO-1449), Paper No. ✓</li> <li>7 ⋈ Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ul>	<u>V</u> . 4□ 6□ 8∑	Interview Summa Examiner's Ame	al Patent Application ( ary (PTO-413), Paper ndment/Comment ement of Reasons for	No		

Application/Control Number: 09/728,896

**Art Unit: 2877** 

## **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance: The prior art, either alone or in combination, does not disclose or render obvious a fiber optic switch having an object disposed on the fron face grooves between the first stationary fiber array and the movable fiber array; an object disposed on the front face groove and rear face grooves between the second stationary fiber array and the movable fiber array; whereby the movable fiber array moves in a transverse direction by rolling or sliding on the objects in combination with the rest of claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art has sliding fiber arrays, but no object between them to aid in the motion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Mooney whose telephone number is 703-308-6125. The examiner can normally be reached during weekdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 703-308-4881. The fax phone numbers

Application/Control Number: 09/728,896

Art Unit: 2877

for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-

0956. An alternative useful number for status inquiries is 703-306-3329.

Michael P. Mooney

Examiner Art Unit 2877 Frank G. Font

Supervisory Patent Examiner

Art Unit 2877

FGF/mpm 6/25/02